

State HAP Rulemaking

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Overview

- Clean Air Act Regulatory Background
- Statutory Authority
- Prior Rulemaking
- Weston Tasks
- Process
- URL for Rulemaking Documents:
www.azdeq.gov/function/laws/draft.html#haps

CAA Regulatory Background

- Two Approaches to Air Regulation
 - Risk Management
 - Risk Reduction Through Control Technology

CAA Regulatory Background

- Risk Management
 - Steps
 - Identify “safe” concentration for a pollutant, e.g. NAAQS
 - Determine current exposure
 - Rollback emissions to a level that will assure the safe concentration is not exceeded
 - Examples
 - Arizona rules for sulfur dioxide emissions from smelters
 - 1970 federal HAP program

CAA Regulatory Background

- Risk Reduction/Control Technology
 - Rationale
 - Two Types
 - Regulatory standards for similar facilities (“sources”)
 - New source review (NSR) requiring source-specific imposition of control technology
 - New sources
 - Modifications
 - Examples
 - Regulatory: 1990 federal HAP (§ 112), RACT
 - NSR: PSD, **112(g)**

Statutory Authority

- Overview
 - A.R.S. 49-426.06 authorizes **risk reduction approach, NSR type**, modeled on 112(g)
 - Applies to certain new and modified sources of HAP
 - Provides for imposition of control technology on a case-by-case basis
 - Level of control technology varies with size of source
 - Source has opportunity to avoid or mitigate application of control technology by conducting risk management analysis

Statutory Authority

- HAP
 - Federal HAP listed in section 112(b) of Clean Air Act automatically included
 - ADEQ has authority to list additional HAPs under 49-426.04
 - Criteria for listing
 - Must have “credible medical and toxicological evidence that has been subjected to peer review”
 - Evidence must “demonstrate adverse effects to human health...at concentrations that are likely to occur in the environment... .”

Statutory Authority

- Sources Subject to Program
 - All major sources of HAP; defined as source with potential to emit (PTE):
 - 10 tons per year (TPY) of a single HAP
 - 25 TPY of any combination of HAP
 - Area (non-major) sources
 - With PTE of
 - 1 TPY of a single HAP
 - 2.5 TPY of a combination of HAP
 - **But only if** the source belongs to a category listed pursuant to section 49-426.05

Statutory Authority

- Sources Subject to Program (cont'd)
 - Source category Listing Criteria under 49-426.05: HAP emissions “from sources in the category individually or in the aggregate result in adverse effects to human health or adverse environmental effects.”

Statutory Authority

- New Sources and Modifications
 - New source = newly constructed source
 - Modification (under 49-401.01): “a physical change in or change in the method of operation of a source which increases actual emissions of any regulated air pollutant emitted by such source by more than any relevant ***de minimis amount*** or which results in the emission of any regulated air pollutant not previously emitted by more than such *de minimis amount*.”

Statutory Authority

- New Sources and Modifications (cont'd)
 - De minimis amounts
 - EPA was to establish de minimis amounts under 112(g) (federal NSR for HAP), but never did
 - If the state HAP program is to apply to modifications, and not just new sources, ADEQ needs to establish de minimis amounts for federal HAP
 - A.R.S. 49-426.06(B) provides that “the director shall by rule establish appropriate de minimis amounts for hazardous air pollutants that are not federally listed hazardous air pollutants.”

Statutory Authority

- Control Technology
 - Major sources:
 - Subject to “maximum achievable control technology” (MACT)
 - Same as standard applicable to major sources under section 112 of CAA

Statutory Authority

- Control Technology (cont'd)
 - Area sources
 - Subject to “hazardous air pollutant reasonably available control technology” (HAPRACT)
 - In determining what is reasonably available, the Director must take into consideration “the estimated actual air quality impact of the standard, the cost of complying with the standard, the reliability and widespread use of the technology required to meet the standard and any non-air quality health and environmental impacts and energy requirements.”

Statutory Authority

- Control Technology (cont'd)
 - A source can avoid the imposition of MACT or HAPRACT by “conducting a scientifically sound risk management analysis” which demonstrates that imposition of MACT or HAPRACT “is not necessary to avoid adverse effects to human health or adverse environmental effects.”

Prior Rulemaking

- Attempt to list state HAP
 - Stringency of criteria: argument that epidemiological studies or other studies showing actual human health effects required
 - Primary source of controversy with stakeholders
- ADEQ unable to obtain GRRC approval
- Adjusted focus: implementing state program for 189 federal HAP

Weston Tasks

- List source categories subject to program
 - Purpose: Allows regulation of area sources with PTE of 1 TPY of single HAP or 2.5 TPY of combination; otherwise only major sources (PTE of 10/25 TPY) would be regulated.
 - Candidate categories for listing identified through analysis of state emission inventory and TRI data

Weston Tasks

- List source categories subject to program (cont'd)
 - Subtask 1
 - Identify levels at which adverse effects to human health will result from federal HAP emitted by candidate sources
 - Status: Weston has provided separate draft reports for chronic and acute effects. ADEQ has provided comments on both drafts.

Weston Tasks

- List source categories subject to program (cont'd)
 - Subtask 2
 - Model HAP emissions from representative sources in the candidate categories to determine ambient concentrations
 - Status: ADEQ and Weston are gathering data on PTE and modeling parameters

Weston Tasks

- List source categories subject to program (cont'd)
 - Subtask 3
 - Make recommendation of whether to list a source by comparing levels identified in Subtask 1 to concentrations modeled in Subtask 2;
 - Status: Awaiting completion of data gathering for Subtask 2 and modeling

Weston Tasks

- Identify de minimis amounts for federal HAP emitted by candidate source categories
 - Purpose: Allow regulation of modifications to existing sources as well as new sources
 - Status: Weston has prepared a draft report

Weston Tasks

- Identify criteria for listing state HAP in a future rulemaking
 - Purpose: Allow regulation of HAP beyond federal list
 - Status: Weston has prepared a draft report